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| 10/806,937 | 03/23/2004 | Russell Wayne Dellmo | GCSD-1572 (51394) | 2858 |
| 74701 7590 04/10/2009 ALLEN, DYER, DOPPELT, MILBRATH & GILCHRIST 255 S ORANGE AVENUE SUITE 1401 ORLANDO, FL 32801 | | | | |
| EXAMINER ALMEIDA, DEVINE E | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

creganoa@addmg.com

Office Action Summary

Application No.

10/806,937

Applicant(s)

DELLMO ET AL.

Examiner

DEVIN ALMEIDA

Art Unit

2432

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/5508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This action is in response to the papers filed 3/06/2009

Response to Arguments

Applicant's arguments with respect to the "cryptographic processor communicating with said user network interface using Media Independent Interface (MII), and said cryptographic processor communicating with said network communications interface using the MII and said cryptographic module and said communication module communication to transfer encrypted data and communication module configuration operations there between" have been fully considered but they are not persuasive. Dellmo clearly teaches in figure 7 and paragraph 0050 that control and gateway circuit 73 controls the transfer of data and the configuration operation between the cryptographic module and said communication module. Boucher teaches said cryptographic processor communicating with said user network interface using a Media Independent Interface (MII), and said cryptographic processor communicating with said network LAN interface using the MII (see Boucher column 17 lines 9-34). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to have used Media Independent Interface because of it commercially available physical layer chips that support number of different conduits, such as twisted pair, coaxial cable or optical fiber (see Boucher column 17 lines 9-34). Therefore one would have been motivated to have used Media Independent Interface.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 3, 8, 10, 11, 21, 27, 28, 30, 35-37 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dellmo (U.S. 2002/0095594) in view of Boucher et al (U.S. 6,427,173).

Dellmo teaches a cryptographic device comprising: a cryptographic module (see paragraph 0038 i.e. cryptography circuit 70) and a communications module (see paragraph 0038 i.e. wireless transceiver 50) removably coupled thereto (see figure 7); said cryptographic module comprising a user network interface (see paragraph 0034 i.e. interface connector 27 may be a PCMCIA connector or other similar connector that can readily interface to a number of possible LAN devices as will be appreciated by those skilled in the art) and a cryptographic processor (see paragraph 0047 i.e. cryptography processor 72) coupled thereto (see figure 7); said communications module comprising a network communications interface (see paragraph 0035 and 0041-0046) coupled to said cryptographic processor (see figure 7); said cryptographic module and said communication module communication to transfer encrypted data and communication module configuration operations there between (see paragraph 0050).

Dellmo does not teach said cryptographic processor communicating with said user network interface using Media Independent Interface (MII), and said cryptographic

processor communicating with said network communications interface using the MII (see Boucher column 17 lines 9-34). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to have used Media Independent Interface because of it commercially available physical layer chips that support number of different conduits, such as twisted pair, coaxial cable or optical fiber (see Boucher column 17 lines 9-34). Therefore one would have been motivated to have used Media Independent Interface.

With respect to claims 2, 22, 29, and 38 the cryptographic device wherein said user network interface and said network communications interface both comprise Local Area Network (LAN) interfaces (see Dellmo paragraph 0034 and 0035)

With respect to claims 3, 30, and 39 wherein said cryptographic processor comprises: a host network processor (see Dellmo figure 2 element 25 and paragraph 0035 it is inherent that the computer station has a processor since unencrypted data called "plain text" is generated at the station 25) communicating with said user network interface using the MII (see Dellmo paragraph 0040 and Boucher column 17 lines 9-34); and a cryptography circuit (see Dellmo paragraph 0047-0050 i.e. field programmable gate array) communicating with said host network processor using the MII (see Dellmo paragraph 0050 and Boucher column 17 lines 9-34).

With respect to claim 8, wherein said network communications interface comprises a wireless LAN (WLAN) communication circuit (see Dellmo figure 4 and paragraph 0035 and 0041-0046).

With respect to claims 10, wherein said network communications interface comprises a fiber optic communication circuit (see Boucher column 17 lines 9-34).

With respect to claim 11, wherein said user network interface comprises an Ethernet interface (see paragraph 0035-0036).

With respect to claim 21, a communications method comprising: removable coupling a cryptographic module (see paragraph 0038 i.e. cryptography circuit 70) to a network device (see figure 4), the cryptographic module comprising a user network interface (see paragraph 0034 i.e. interface connector 27 may be a PCMCIA connector or other similar connector that can readily interface to a number of possible LAN devices as will be appreciated by those skilled in the art) and a cryptographic processor (see paragraph 0047 i.e. cryptography processor 72) coupled thereto (see figure 7);

providing a communications module (see paragraph 0038 i.e. wireless transceiver 50) comprising a network communications interface (see paragraph 0035 and 0041-0046) coupled to the cryptographic processor (see figure 7);

and using the network communications interface to communicate with a network (see figure 4 paragraph 0035);

using the cryptographic module and said communication module to communication to transfer encrypted data and communication module configuration operations there between (see paragraph 0050)

Dellmo does not teach using the cryptographic processor to communicate with the user network interface and the network communications interface using a Media Independent Interface (MII) (see Boucher column 17 lines 9-34). It would have been

obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to have used Media Independent Interface because of it commercially available physical layer chips that support number of different conduits, such as twisted pair, coaxial cable or optical fiber (see Boucher column 17 lines 9-34). Therefore one would have been motivated to have used Media Independent Interface.

With respect to claims 27, wherein the network communications interface comprises at least one of a wireless Local Area Network (WLAN) communication circuit, a wireline communication circuit, and a fiber optic communication circuit (see figure 4 and paragraph 0035 and 0041-0046).

With respect to claim 28, a communications system comprising: a plurality of network devices (see figure 4 element 25) coupled together to define a network (see figure 4), and a cryptographic device (see figure 4 element 20) removably coupled to at least one of said network devices; said cryptographic device comprising a cryptographic module (see paragraph 0038 i.e. cryptography circuit 70) coupled to said at least one network device (see figure 2, and a communications module (see paragraph 0038 i.e. wireless transceiver 50) coupled to said cryptographic module (see figure 7); said cryptographic module comprising a user network interface (see paragraph 0034 i.e. interface connector 27 may be a PCMCIA connector or other similar connector that can readily interface to a number of possible LAN devices as will be appreciated by those skilled in the art) and a cryptographic processor (see paragraph 0047 i.e. cryptography processor 72) coupled thereto (see figure 7); said communications module comprising a

network communications interface (see paragraph 0035 and 0041-0046) coupled to said cryptographic processor (see figure 7); said cryptographic module and said communication module communication using the MII to transfer encrypted data and communication module configuration operations therebetween.

Dellmo does not teach said cryptographic processor communicating with said user network interface using Media Independent Interface (MII), and said cryptographic processor communicating with said network communications interface using the MII (see Boucher column 17 lines 9-34). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to have used Media Independent Interface because of it commercially available physical layer chips that support number of different conduits, such as twisted pair, coaxial cable or optical fiber (see Boucher column 17 lines 9-34). Therefore one would have been motivated to have used Media Independent Interface.

With respect to claims 35, wherein the network communications interface comprises at least one of a wireless Local Area Network (WLAN) communication circuit, a wireline communication circuit, and a fiber optic communication circuit (see figure 4 and paragraph 0035 and 0041-0046).

With respect to claims 36, wherein said user network interface comprises an Ethernet interface (see paragraph 0035-0036).

With respect to claim 37, a cryptographic module comprising: a user network interface (see paragraph 0034 i.e. interface connector 27 may be a PCMCIA connector or other similar connector that can readily interface to a number of possible LAN

devices as will be appreciated by those skilled in the art); and a cryptographic processor (see paragraph 0047 i.e. cryptography processor 72) removably coupled to said user network interface (see figure 7); said cryptographic module and said communication module communication using the MII to transfer encrypted data and communication module configuration operations therebetween.

Dellmo does not teach said cryptographic processor communicating with said user network interface using Media Independent Interface (MII), and said cryptographic processor communicating with said network communications interface using the MII (see Boucher column 17 lines 9-34). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to have used Media Independent Interface because of it commercially available physical layer chips that support number of different conduits, such as twisted pair, coaxial cable or optical fiber (see Boucher column 17 lines 9-34). Therefore one would have been motivated to have used Media Independent Interface.

Claims 25, 33 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dellmo (U.S. 2002/0095594) in view of Boucher et al (U.S. 6,427,173) in view of Nguyen (U.S. 2002/0001307).

Dellmo and Lee teaches everything with respect to claims 21, 28, and 37 above but with respect to claim 25, 33, and 42 Dellmo does not teach said cryptographic module and said communications module both operate using at least one unique external media access control (MAC) address, and at least one fixed internal MAC

address. Nguyen teach said cryptographic module and said communications module both operating using at least one unique external media access control (MAC) address (see Nguyen paragraph 0864 i.e. external MAC address), and at least one fixed internal MAC address (see Nguyen paragraph 0864 internal addresses (i.e. IEEE assigned MAC addresses)). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to have used MAC addresses to guarantee the identity of each network device in the network. Therefore one would have been motivated to have used MAC address for authentication.

Claims 12, 13, 15, 17, 19, 20, 22, 29, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dellmo (U.S. 2002/0095594) in view of Boucher et al (U.S. 6,427,173) in further view of Nguyen (U.S. 2002/0001307).

With respect to claim 12 Dellmo teaches a cryptographic device comprising: a cryptographic module (see paragraph 0038 i.e. cryptography circuit 70) and a communications module (see paragraph 0038 i.e. wireless transceiver 50) coupled thereto (see figure 7); said cryptographic module comprising a user Local Area Network (LAN) interface (see paragraph 0034 i.e. interface connector 27 may be a PCMCIA connector or other similar connector that can readily interface to a number of possible LAN devices as will be appreciated by those skilled in the art) and a cryptographic processor (see paragraph 0047 i.e. cryptography processor 72) coupled thereto (see figure 7); said communications module comprising a network LAN interface (see

paragraph 0035 and 0041-0046) coupled to said cryptographic processor (see figure 7). said cryptographic module and said communication module communication to transfer encrypted data and communication module configuration operations there between (see paragraph 0050)

Dillmo does not teach said cryptographic processor communicating with said user network interface using a Media Independent Interface (MII), and said cryptographic processor communicating with said network LAN interface using the MII and said cryptographic module and said communications module both operating using at least one unique external media access control (MAC) address, and at least one fixed internal MAC address.

Boucher teaches said cryptographic processor communicating with said user network interface using a Media Independent Interface (MII), and said cryptographic processor communicating with said network LAN interface using the MII (see Boucher column 17 lines 9-34). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to have used Media Independent Interface because of it commercially available physical layer chips that support number of different conduits, such as twisted pair, coaxial cable or optical fiber (see Boucher column 17 lines 9-34). Therefore one would have been motivated to have used Media Independent Interface.

Nguyen teach said cryptographic module and said communications module both operating using at least one unique external media access control (MAC) address (see Nguyen paragraph 0864 i.e. external MAC address), and at least one fixed internal

MAC address (see Nguyen paragraph 0864 internal addresses (i.e. IEEE assigned MAC addresses)). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to have used MAC addresses to guarantee the identity of each network device in the network. Therefore one would have been motivated to have used MAC address for authentication.

With respect to claim 13, wherein said cryptographic processor comprises: a host network processor (see Dillmo figure 2 element 25 and paragraph 0035 it is inherent that the computer station has a processor since unencrypted data called "plain text" is generated at the station 25) communicating with said user network interface using the MII (see Dillmo paragraph 0040 and Boucher column 17 lines 9-34); and a cryptography circuit (see paragraph 0047-0050 i.e. field programmable gate array) communicating with said host network processor using the MII (see Dillmo paragraph 0050 and Boucher column 17 lines 9-34).

With respect to claims 15, wherein communications to and from said encrypted data buffer and said unencrypted data buffer use MII (see Boucher column 17 lines 9-34).

With respect to claims 17, wherein said network communications interface comprises a wireless LAN (WLAN) communication circuit (see Dillmo figure 4 and paragraph 0035 and 0041-0046).

With respect to claims 19, wherein said network communications interface comprises a fiber optic communication circuit (see Boucher column 17 lines 9-34).

With respect to claims 20, wherein said user network interface comprises an Ethernet interface (see paragraph 0035-0036).

Claims 4, 5, 23, 24, 31, 32, 40 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dellmo (U.S. 2002/0095594) in view of Boucher et al (U.S. 6,427,173) in view of Hashimoto (U.S. 4,907,275).

Dellmo and Boucher teaches everything with respect to claim 1, 21, 28, and 37 but with respect to claims 4, 31, and 40, Dellmo does not teach wherein said cryptographic processor further comprises: an encrypted data buffer circuit coupled between said user network interface and said cryptography circuit; and an unencrypted data buffer circuit coupled between said cryptography circuit and said network communications interface. Hashimoto teaches wherein said cryptographic processor further comprises: an encrypted data buffer circuit (see figure 2B element 16) coupled between said user network interface (see figure 2B element 12) and said cryptography circuit (see figure 2B element 15); and an unencrypted data buffer circuit (see figure 2B element 14) coupled between said cryptography circuit (see figure 2B element 15) and said network communications interface (see figure 2B element 12). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to have encrypted data buffer circuit and an unencrypted data buffer circuit to help control the data flow into and out of the cryptography circuit. (see column 3 line 57 – column 4 line 2). Therefore one would have been motivated to have an encrypted data buffer circuit coupled between said

user network interface and said cryptography circuit; and an unencrypted data buffer circuit coupled between said cryptography circuit and said network communications interface.

With respect to claims 5, 32 and 41 wherein communications to and from said encrypted data buffer and said unencrypted data buffer use the MII (see Dillmo paragraph 0040 and Boucher column 17 lines 9-34).

With respect to claims 23, wherein the cryptographic processor comprises a host network processor (see Dillmo figure 2 element 25 and paragraph 0035 it is inherent that the computer station has a processor since unencrypted data called "plain text" is generated at the station 25) communicating with said user network interface using the MII (see Boucher column 17 lines 9-34); and a cryptography circuit (see Dillmo paragraph 0047-0050 i.e. field programmable gate array) communicating with said host network processor using the MII (see Boucher column 17 lines 9-34); an encrypted data buffer circuit (see Hashimoto figure 2B element 16) coupled between the user network interface (see Hashimoto figure 2B element 12) and the cryptography circuit (see Hashimoto figure 2B element 15); and an unencrypted data buffer circuit (see Hashimoto figure 2B element 14) coupled between the cryptography circuit (see Hashimoto figure 2B element 15) and the network communications interface (see Hashimoto figure 2B element 12).

With respect to claims 24. The cryptographic device of claim 4 wherein communications to and from said encrypted data buffer and said unencrypted data buffer use the MII (see Dellmo paragraph 0040).

Claims 7, 9, 26 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dellmo (U.S. 2002/0095594) In view of Boucher et al (U.S. 6,427,173) in view of Cheng (U.S. 2003/0221034).

Dellmo and Boucher teaches everything with respect to claim 1, 21, and 28 above, but with respect to claim 7, 26, and 34, Dellom does not teach wherein said communications module comprises a predetermined one from among a plurality of interchangeable communications modules each for communicating over a different communications media. Cheng teaches wherein said communications module is removable coupled to said cryptographic module; and wherein said communications module comprises a predetermined one from among a plurality of interchangeable communications modules each for communicating over a different communications media (see paragraph 0029-0030). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to have made the communications module removable coupled with the cryptographic module to allow the user to change the module based on changing requirements (see paragraph 0030). Therefore one would have been motivated to have made the communications module removable coupled with the cryptographic module.

With respect to claims 9, wherein said network LAN interface comprises a wireline LAN communication circuit (see paragraph 0036).

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dellmo (U.S. 2002/0095594) In view of Boucher et al (U.S. 6,427,173) in view of Boucher et al (U.S. 6,427,173) in further view of Hashimoto (U.S. 4,907,275).

Dellmo, Boucher and Boucher teach everything with respect to claim 12 but with respect to claims 14 they does not teach wherein said cryptographic processor further comprises: an encrypted data buffer circuit coupled between said user network interface and said cryptography circuit; and an unencrypted data buffer circuit coupled between said cryptography circuit and said network communications interface. Hashimoto teaches wherein said cryptographic processor further comprises: an encrypted data buffer circuit (see figure 2B element 16) coupled between said user network interface (see figure 2B element 12) and said cryptography circuit (see figure 2B element 15); and an unencrypted data buffer circuit (see figure 2B element 14) coupled between said cryptography circuit (see figure 2B element 15) and said network communications interface (see figure 2B element 12). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to have encrypted data buffer circuit and an unencrypted data buffer circuit to help control the data flow into and out of the cryptography circuit. (see column 3 line 57 – column 4 line 2). Therefore one would have been motivated to have an encrypted data buffer circuit coupled between said user network interface and said cryptography circuit; and an unencrypted data buffer circuit coupled between said cryptography circuit and said network communications interface.

Claims 16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dellmo (U.S. 2002/0095594) in view of Boucher et al (U.S. 6,427,173) in further view of Cheng (U.S. 2003/0221034).

Dellmo and Boucher teaches everything with respect to claim 12 above, but with respect to claim 16, they does not teach wherein said communications module is removable coupled to said cryptographic module; and wherein said communications module comprises a predetermined one from among a plurality of interchangeable communications modules each for communicating over a different communications media. Cheng teaches wherein said communications module is removable coupled to said cryptographic module; and wherein said communications module comprises a predetermined one from among a plurality of interchangeable communications modules each for communicating over a different communications media (see paragraph 0029-0030). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to have made the communications module removable coupled with the cryptographic module to allow the user to change the module based on changing requirements (see paragraph 0030). Therefore one would have been motivated to have made the communications module removable coupled with the cryptographic module.

With respect to claims 18. The cryptographic device of claim 12 wherein said network LAN interface comprises a wireline LAN communication circuit (see Dellmo paragraph 0036).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devin Almeida whose telephone number is 571-270-1018. The examiner can normally be reached on Monday-Thursday from 7:30 A.M. to 5:00 P.M. The examiner can also be reached on alternate Fridays from 7:30 A.M. to 4:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron, can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Devin Almeida/
Examiner, Art Unit 2432

/Gilberto Barron Jr./
Supervisory Patent Examiner, Art Unit 2432